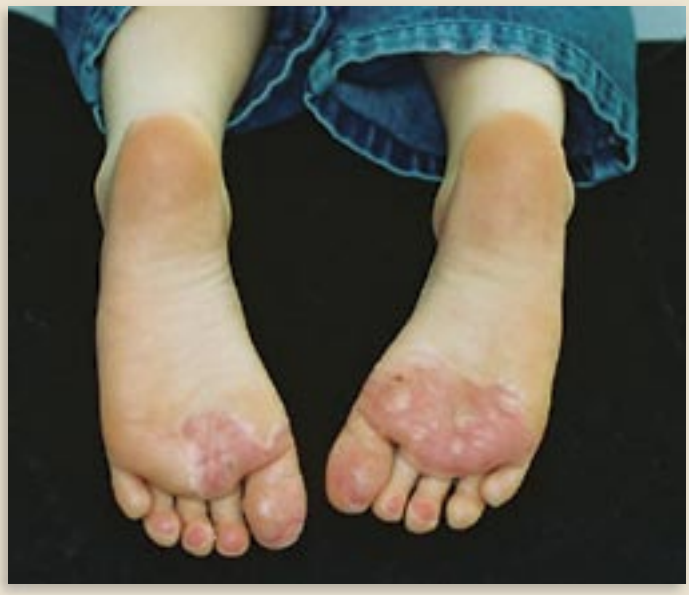
Dermacase

Sunil Kalia Stewart P. Adams, MD, FRCPC



CAN YOU IDENTIFY THIS CONDITION?

An 8-year-old patient presented with dry, red, shiny lesions on his toes and on the weight-bearing metatarsals of his forefoot. There were no lesions on the web spaces between his toes.

The most likely diagnosis is:

1. Psoriasis
2. Dermatitis caused by shoes
3. Keratolysis exfoliativa
4. Juvenile plantar dermatosis
5. Tinea pedis

Answer on page 1213

Ms Kalia *is a Clinical Clerk in the Faculty of Medicine at the University of Calgary in Alberta.* **Dr Adams** *is a Clinical Assistant Professor in the Division of Dermatology, Department of Medicine, at the University of Calgary.*

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Answer to Dermacase

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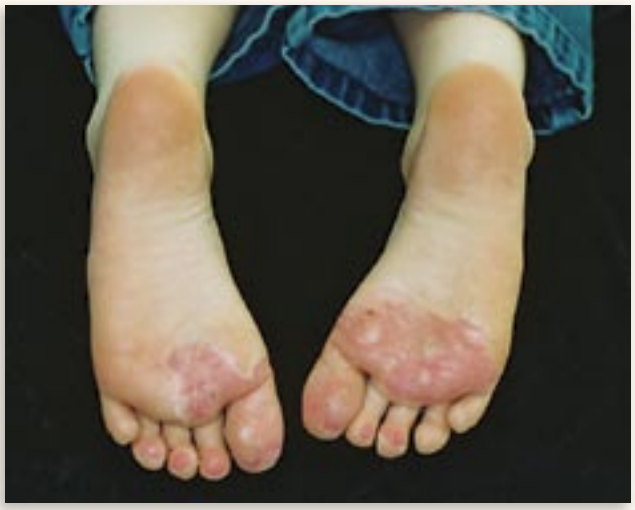
4. Juvenile plantar dermatosis

Juvenile plantar dermatosis (JPD) occurs in children aged 3 to 15, but is seen most frequently in boys aged 4 to 8. It is frequently exacerbated by the warm weather during the summer months. In the literature, JPD has been associated with atopic dermatitis.[1] Juvenile plantar dermatosis is self-limiting and generally resolves at puberty.

Sites most frequently affected are the plantar surfaces of the toes and the anterior part of the sole. Other sites affected infrequently are the dorsal surface of the toes, the heels, and the fingertips. The characteristic feature of JPD is that the web spaces between the toes are spared. Lesions appear as dry, red, shiny, glazed patches. In chronic cases, scaling and fissuring might be apparent. Histologic examination reveals acanthosis with hyperkeratosis, lymphocytic infiltrate in the dermis around the sweat ducts, and inflammation in the epidermis.[2]



Differential diagnosis

Keratolysis exfoliativa is peeling skin. Like JPD, it affects younger adults and occurs more frequently during the summer months. The palms are more frequently affected than the soles. Keratolysis exfoliativa presents initially as pin-sized white spots that extend to produce a collarette of scale. When peeled, this produces red, dry, fissured lesions.

Dermatitis caused by shoes can be differentiated by its usual appearance on the dorsal sides of the feet. Web spaces are spared where there is no contact with shoes. The condition presents with erythema and lichenification.

Tinea pedis has several different manifestations and can be ruled out with a potassium hydroxide examination.[3] Tinea pedis usually occurs in the web spaces between the toes and in the instep.

Psoriasis is usually distinguished by its hyperkeratotic silvery-white scaly lesions.

Treatment

Treatment of JPD is multifactoral.[4] Lubricating the dry skin with greasy moisturizers, such as petroleum jelly, after a bath or using dimethicone barrier creams is suggested. Patients should be advised to wear cotton socks and sandals because synthetic materials and friction can aggravate the problem. Topical corticosteroids can be used, especially for inflammatory episodes. These drugs should be used for only short periods to avoid corticosteroid-induced thinning and cracking of the skin.

References

1. Svensson A. Prognosis and atopic background of juvenile plantar dermatosis and gluteo-femoral eczema. *Acta Derm Venereol* (Stockh) 1988;68:336-40.
2. Graham RM, Verbov JL, Vickers CF. Juvenile plantar dermatosis. *Clin Exper Dermatol* 1987;12(6):468-9.
3. Sams W, Lynch P. *Principles and practice of dermatology*. New York, NY: Churchill Livingstone; 1990. p. 143,967-8.
4. Odom R, James W, Berger T. *Andrews' diseases of the skin: Clinical dermatology*. 9th ed. Philadelphia, Pa: W.B. Saunders Co; p. 243-4.